PORT OF MANCHESTER

ANNUAL REPORT

OF THE

Medical Officer of Health

TO THE

PORT HEALTH AUTHORITY

1950

J. ROBERTS & SONS, PRINTERS, SALFORD.

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REPORT BY THE MEDICAL OFFICER OF HEALTH

to the

CHAIRMAN AND MEMBERS OF THE PORT HEALTH AUTHORITY.

I have the honour to present the Annual Report on the work of Port Health Administration in the Port of Manchester during the year 1950, in accordance with Article 17(5) of the Sanitary Officers (outside London) Regulations, 1935.

This Report is presented in the form desired by the Minister of Health, and the statistical information is arranged in the form and sequence indicated in the Appendix to Memo. 302/S.A. of the Ministry dated December, 1946.

The valued assistance given at all times by the staff of the Manchester Ship Canal Company and by H.M. Officers of Customs has materially contributed to the success and smooth working of the Authority's service.

E. H. WALKER,

Medical Officer of Health.

Members of Port Health Authority

The membership of the Authority for the year was as follows :—

Alderman Sir THOMAS ROBINSON, Kt., K.B.E., J.P. (*Chairman*)
Borough of Stretford.

Alderman W. SOMERVILLE, J.P. Councillor T. M. LARRAD Alderman S. H. HITCHBUN succeeded in October by Councillor B. S. LANGTON Councillor Mrs. E. HILL	Manchester.
Alderman W. W. CRABTREE (*Deputy Chairman*) Alderman J. BRENTNALL Councillor E. W. BELL succeeded in November by Councillor C. BROOKES Alderman J. A. WEBB, C.B.E., J.P. succeeded in October by Councillor T. HALL	Salford.
Alderman A. A. J. TRIPPIER	Borough of Eccles. Irlam U.D. Urmston U.D.
Councillor H. T. NICHOLLS succeeded in May by Councillor E. C. BROOKER, J.P.	Lymm U.D. Runcorn U.D. Runcorn R.D. Bucklow R.D.
Alderman D. PLINSTON	Warrington C.B. and R.D.
Councillor J. LONGTON, M.M.	Borough of Widnes. Borough of Bebington. Ellesmere Port U.D.

OFFICIALS OF THE AUTHORITY :

Clerk to the Authority :

A. HOWARD FLINT, Solicitor Bexley Square, Salford, 3.
(until 3rd June, 1950).

J. B. D. HAYNES, Solicitor, Bexley Square, Salford, 3.
(from 5th June, 1950).

Telephone : BLAckfriars 9214.

Medical Officer of Health :

E. H. WALKER, M.B., D.P.H.

Telephones : Office, TRAfford Park 1714 ; *Residence,* LONgford 1700

Telegrams : "Portelth" Manchester.

Deputy Medical Officer of Health :

V. NEWTON, M.R.C.S., D.P.H.

Telephones : BLAckfriars 7852 ; *Residence,* PENdleton 2721.

Food Inspectors :

W. H. Jennings, (1), (2).

T. Borrows, (1), (2).

Sanitary Inspectors :

G. E. Stanley, (1), (2), (3).

N. M. Sampson (1).

R. Egan, (1).

Medical Officer's Clerks :

T. A. Buckley (1).

J. C. Hilton.

Motor Boat Engineer : R. C. Ashton.

Rodent Operative : V. Kendal.

---

(1) *Certified Sanitary Inspector.*
(2) *Certified Meat and Food Inspector.*
(3) *Master Mariner.*

Offices :—

168 Trafford Road, Salford 5 (*Telephone :* TRAfford Park 1714).

67 Langdale Road, Runcorn (*Telephone :* Runcorn 2919).

I.—AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR (1950)

TABLE A.

		Number	Tonnage	Number Inspected		Number reported to be defective	Number of vessels on which defects were remedied	Number of vessels on which defects were reported to Ministry of Transport Surveyors	Number of vessels reported as having, or having had, during the voyage infectious disease on board
				Boarded by Liverpool Port Medical Officer	By the Sanitary Inspectors				
Foreign	Steamers	1,312	2,486,920	209	1,342	444	261	1	22
	Motor	671	1,535,150						
	Sailing	—	—	—	—	—	—	—	—
	Fishing	—	—	—	—	—	—	—	—
	Total Foreign ...	1,983	4,022,070	209	1,342	444	261	1	22
Coastwise	Steamers	1,140	584,358	—	523	172	122	—	—
	Motor	667	248,953						
	Sailing	—	—	—	—	—	—	—	—
	Fishing	—	—	—	—	—	—	—	—
	Total Coastwise ...	1,807	833,311	—	523	172	122	—	—
Total Foreign and Coastwise ...		3,790	4,855,381	209	1,865	616	383	1	22

All figures in respect of the number and tonnage of arrivals were compiled from returns supplied by H.M. Collector of Customs.

II.—CHARACTER OF TRADE OF THE PORT.

TABLE B.

(*A*) Passenger Traffic during 1950 :
Inwards 1,073 ; Outwards 915.
(*Class of Passenger not recorded*).

(*B*) Cargo Traffic—

Principal Imports :

Beer and Porter, Chemicals, Clay, Copper, Cotton, Cottonseed, Linseed &c., Flints, Flour, Meal &c., Foodstuffs, Fruit, General Cargo, Grain, Hides and Skins, Iron, Motor Spirit, Oil, Paper, Cotton Waste, Resin, Sand and Gravel, Spelter, Pig Lead &c., Starch, Farina &c., Stone &c., Sulphur, Tallow &c., Tea, Timber, Woodpulp and Wool.

Principal Exports :

Ale and Porter, Chemicals, Coal, Flour, Meal &c., Foodstuffs, General Cargo, Gravel, Hardware, Iron, Machinery, Motor Spirit, Oil, Paper, Cotton Waste &c., Pitch, Salt, Textiles and Wool.

Total Traffic, 1950 : 9,747,962 tons.
Total Traffic, 1949 : 8,889,677 tons.

(*C*) Foreign Ports from which Vessels arrive :

Algeria	Bona, Algiers, Oran, Philippeville and Benisaf.
Antarctic	Whaling grounds.
Argentina	Buenos Aires, Rosario and Bahia Blanca.
Australia	Melbourne, Port Pirie, Port Adelaide, Sydney, Fremantle and Brisbane.
Belgium	Antwerp, Ghent and Terneuzen.
Brazil	Rio de Janeiro, Santos, Porto Alegre and Rio Grande.
Canada	Botwoodville, Halifax, Montreal, Quebec, St. John, Sydney, C.B., Cornerbrook and Vancouver.
Ceylon	Colombo.
Cyprus	Famagusta.
Denmark	Aalborg, Copenhagen, Esbjerg, Frederikshaven and Odense.
East Africa	Beira, Lourenco Marques, Mombasa.
Egypt	Alexandria, Port Said, Suez and Port Sudan.
Finland	Helsingfors, Kotka, Mantyluoto, Raumo, Lovisa and Abo.
France	Bordeaux, Dunkirk, Lorient, Paris, Nantes, Rouen, Treport, Le Havre, St. Malo and Bayonne.
Germany	Hamburg, Bremen and Warnemunde.
Greece	Patras, Piraeus, Salonika and Volo.

Holland	Amsterdam, Rotterdam and Groningen.
Iceland	Reykjavik.
India	Bombay, Calcutta, Cochin, Vizagapatam.
Iraq	Basra.
Italy	Catania, Genoa, Savona and Trieste.
Mexico	Tampico.
Morocco	Casablanca, Melilla, Safi and Ceuta.
Netherlands West Indies ...	Aruba and Curacao.
Norway	Bergen, Drammen, Narvik, Oslo, Porsgrunn, Christiansand, Stavanger and Trondhjem.
Pakistan	Karachi and Chittagong.
Palestine	Haifa and Jaffa.
Persian Gulf	Mena al Ahmadi, Kuwait, Bandar Mashur, Abadan and Ras Tanura.
Peru	Cabo Blanco, Lobitos and Callao.
Poland	Gdynia.
Portugal	Lisbon, Oporto and Leixoes.
Russia	Archangel, Novorossisk and Odessa.
South Africa	Capetown, Durban, Port Elizabeth, East London and Mussel Bay.
Spain	Almeria, Bilbao, Valencia and Gijon.
Sweden	Gefle, Gothenburg, Lulea, Helsingborg, Kalix, Norrkoping, Stockholm and Sundsvall.
Syria	Beyrout.
Trinidad	Port of Spain.
Tunis	La Goulette, Sfax, Sousse and Tunis.
Turkey	Iskenderun, Istanbul, Smyrna and Derindje.
United States of America ...	Gulf and Pacific Ports, New York, Boston, Baltimore and Philadelphia.
Uruguay	Montevideo.
Venezuela	Punta Cardon, Las Piedras and Caripito.
West Africa	Bathurst, Dakar, Freetown, Lagos, Sapele and Takoradi.
Yugoslavia	Rijeka, Split and Susak.

MEDICAL INSPECTION OF ALIENS.

Manchester is not an Approved Port for the landing of Aliens.

III.—WATER SUPPLY.

(From information kindly supplied by the Traffic Manager of the Manchester Ship Canal Company).

Source of Supply for (*a*) the Port, (*b*) Shipping :—

Fresh water can be obtained by vessels at the Manchester Docks at various wharves between Mode Wheel and Barton, Partington Coal Basin, Latchford Locks, Warrington Lay-Bye, Runcorn Lay-Bye, Runcorn Docks, Weston Point Docks, Stanlow Lay-Bye, Stanlow Oil Dock, Ellesmere Port Docks, and Eastham Locks, the sources of supply being from Corporation, etc. mains.

Number of water boats : One (for the supply of water to the Rock Cutters employed outside the entrance to the Canal at Eastham in connection with the construction of the new oil dock).

Samples of water were taken for chemical analysis and bacteriological examination from the double bottom tank and domestic tank of a vessel following information that numerous cases of stomach trouble and boils had been reported during the voyage. The drinking water had been taken on at Liverpool and the tanks topped up in Sweden. The reports of the Salford City Analyst and Bacteriologist were brought to the notice of the Owners of the vessel, who promptly gave the matter their attention.

IV.—PORT HEALTH REGULATIONS, 1933 and 1945.

Declarations of Health are supplied to Masters of vessels by Officers of H.M. Customs and Inspectors of the Port Health Authority. During the year, 499 Declarations of Health were received from the Customs Officers.

209 Certificates were received from the Medical Officer of Health for the Port of Liverpool in respect of vessels boarded in the River Mersey, granting permission to proceed to Manchester.

Treatment of Venereal Disease.

The Inspectors have continued to distribute pamphlets giving information of local treatment centres.

The following information as to the treatment of seamen in the Port suffering from Venereal Disease is supplied by the Medical Officer of the Salford Treatment Centre, which is the nearest Treatment Centre to the Docks :—

Patients with—	*British Seamen.*	*Foreign Seamen.*
Syphilis	3 ...	2
Gonorrhoea	42	46
Other Conditions	119 ...	69
Total	164 ...	117
Arsenobenzene Injections ...	20 ...	18
Bismuth Injections	13 ...	7
Attendances	704 ...	376

Number of Crews of various Nationalities on vessels inspected during the year :—

British—	
Europeans	27,975
Lascars, Arabs, etc.	2,968
Chinese	723
	31,666
American	3,237
Belgian	81
Danish	1,274
Dutch	2,586
Egyptian	227
Eireann	44
Finnish	1,059
French	308
German	319
Greek	66
Honduran	28
Indian	228
Italian	623
Jugo-Slavian	139
Liberian	27
Norwegian	6,142
Panamanian	941
Polish	33
Portuguese	33
Spanish	166
Swedish	3,407
Total	52,634

TABLE C.

Cases of Infectious Sickness on Vessels in the Port.

Disease.	No. of Cases during 1950: Passengers.	Crew.	No. of Vessels concerned.	Average No. of cases for for previous 5 years.
(1) Dysentery	—	1	1	0.0
(2) Pneumonia	—	1	1	1.8
(3) Tuberculosis ...	—	3	3	1.6

(1) Removed to Clatterbridge General Hospital.

(2) Found dead on arrival at Partington Coal Basin.

(3) One case admitted to Ladywell Sanatorium, another case left the vessel at Stanlow to proceed to London, and the third case left the vessel at Barton to return home to Holland.

TABLE D.

Cases of Infectious Sickness occurring on Vessels during the voyage but disposed of prior to arrival in Manchester.

Disease.	No. of Cases during 1950: Passengers.	Crew.	No. of Vessels concerned.	Average No. of cases for for previous 5 years.
(*a*) Chicken Pox ...	—	1	1	0.0
(*b*) Dysentery	—	3	2	3.0
(*c*) Erysipelas	1	—	1	0.0
(*d*) Malaria	—	10	6	10.0
(e) Pneumonia ...	—	2	2	2.4
(*f*) Tuberulosis ...	—	5	5	1.4

(*a*) Removed to hospital at Aden.

(*b*) One case removed at Beira and another at Port Said ; the third case had recovered on arrival in Manchester.

(*c*) Suffered on voyage—recovered on arrival.

(*d*) One case died in hospital at Lagos ; five cases received hospital treatment at Curacao, one at Santos who later re-joined the vessel, and another at Takoradi. Two further cases had recovered on arrival in Manchester.

(e) One case removed to hospital at Lagos but later re-joined the vessel; another case removed to Bootle Hospital.

(*f*) One case left the vessel at Bordeaux, another at Belfast and a third at Curacao. One case removed to hospital at Abadan and another at Houston.

No cases of Plague, Yellow Fever or Typhus Fever occurred, and no plague-infected rats were found on vessels within the Port during 1950.

V.—MEASURES AGAINST RODENTS.

Measures have continued on the lines detailed in previous years for the detection of rodent plague and of rat prevalence in ships and on shore, for the prevention of the passage of rats between ships and shore and the deratisation of ships.

There were 1,595 "rat inspections" made during the year, 473 by the Inspector at the Eastham end of the Port, and 1,122 by the Inspectors at the Manchester end.

848 ships were found without ratguards in position. 221 re-visits were made to note if ratguards had been fitted, following instructions from the Inspectors.

A further 479 re-visits were made in respect of applications for Deratisation Exemption Certificates and to supervise and follow up fumigations before issuing Deratisation Certificates.

RODENT OPERATIVE'S WORK.

The Authority's rodent operative is employed in searching vessels for evidence of rodents, in estimating the number of rats present on each vessel, and in rodent control whilst the vessel is in port. All rats caught are destroyed, except specimens which are submitted to the Public Health Laboratory for examination. 52 rats were forwarded for examination during the year, no evidence of plague infection being discovered.

Traps were laid on 51 vessels during the year. Daily visits were made to these vessels, with the following results :—

Rats caught by trapping :	
Black	90
Brown	—
Total	90
Vessels visited...	752
Re-visits	555
Total	1,307

During the year there was a considerable decrease in the number of rats destroyed on shipboard. The total number obtained from ships was 282, as against 567 in 1949, 1,072 in 1948, and 2,335 in 1947.

On vessels in docks, trapping accounted for 90 rats and 15 mice ; 46 rats and 5 mice were on ships arriving from Infected Ports. 178 rats and 97 mice were destroyed as a result of 16 fumigations carried out during the year, as compared with 405 rats destroyed by 24 fumigations in 1949.

Special attention has again been directed to ships from Infected Ports and daily care has been exercised to prevent the passage of rodents between ships and shore.

OTHER RODENT CONTROL MEASURES.

From Dock Premises the number of rats caught by the ratcatcher employed by the Manchester Ship Canal Co. was 1,897.

Two Shipping Companies had their vessels visited regularly by private rodent contractors whilst the vessels were in the Port. The results of this service can be appreciated when it is pointed out that in only one instance was it necessary to enforce fumigation when the renewal of Form P.11 was required.

151 rats and 91 mice were destroyed on the Manchester Ship Canal Company's property at Ellesmere Port, Stanlow and Eastham, under the direction of the Chief Sanitary Inspector of the Ellesmere Port U.D.C., and a kill of 453 rats was estimated. 252 inspections were carried out and 29 treatments undertaken.

163 rats and 170 mice were destroyed on the Company's property at Runcorn. There was a reduction in the number of rats destroyed, probably due to the fact that the storage of grain has been discontinued at the warehouses.

The continued co-operation of the Chief Sanitary Inspectors of Ellesmere Port and Runcorn is very helpful and their efforts to reduce rodent infestation on premises abutting the Canal within their jurisdiction have met with considerable success.

Rodent control measures on vessels lying at the Ellesmere Port section of the Canal were carried out by the Authority's motor boat engineer under the supervision of Inspector Stanley. Traps and poison baits were laid on 3 vessels, resulting in 14 rats being destroyed. It was not possible to carry out any rodent control measures on tankers at Stanlow owing to the short time these vessels normally remain in dock. When rodent evidence was found, the matter was brought to the notice of the Master, who readily agreed to taking the necessary action to abate the complaint.

RATS DESTROYED DURING 1950.

TABLE E. (1) On Vessels.

Number of Rats.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in year
Black	13	2	6	10	6	6	16	—	10	12	23	—	104
Brown	—	—	—	—	—	—	—	—	—	—	—	—	—
*Species not recorded	—	31	34	7	8	—	5	2	—	70	14	7	178
Examined	2	—	1	1	—	—	4	—	3	6	3	—	20
Infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

*These 178 rats and also 97 mice were destroyed by fumigations.

TABLE F. (2) In Docks, Quays, Wharves and Warehouses

Number of Rats.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in year
*Species not recorded	180	164	188	162	209	169	179	114	148	121	163	100	1,897
Examined	1	5	3	3	—	6	4	3	3	4	—	—	32
Infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE G.—Particulars relating to Plague "Infected" or "Suspected" Vessels, or Vessels from Plague Infected Ports, arriving in the Port during 1950.

Total Number of such Vessels arriving (1)	*Number of such vessels fumigated by* SO_2 (2)	*Number of Rats killed* (3)	*Number of such vessels fumigated by* HCN (4)	*Number of Rats killed* (5)	*Number of such vessels on which trapping, poisoning, etc. were employed* (6)	*Number of Rats killed* (7)	*Number of such vessels on which measures of Rat Destruction were not carried out* (8)
252	1	5	4	58	18	19	234*

* Oil Tankers and vessels showing no evidence of rat infestation.

TABLE H.—Deratisation Certificates and Deratisation Exemption Certificates issued during the year.

Net Tonnage (1)	*Number of Ships* (2)	*Number of Deratisation Certificates issued*					*Number of Deratisation Exemption Certificates Issued* (8)	*Total Certificates issued* (9)
		After Fumigation with			*After Trapping, Poisoning, etc.* (6)	*Total* (7)		
		HCN (3)	*Sulphur* (4)	HCN *and Sulphur* (5)				
Ships up to 300 tons	10	—	—	—	—	—	10	10
Ships from 301 tons to 1,000 tons	35	1	—	—	—	1	34	35
Ships from 1,001 tons to 3,000 tons	33	5	—	—	—	5	28	33
Ships from 3,001 tons to 10,000 tons	98	9	1	—	—	10	88	98
Ships over 10,000 tons	—	—	—	—	—	—	—	—
Totals	176	15	1	—	—	16	160	176

VESSELS FROM "INFECTED" PORTS.

Name of Country and Port from which Vessels proceeded to Manchester.	Number of Vessels.	Rats trapped in Manchester.
Algeria :		
Algiers, Bona, Oran	8	4
Argentina :		
Buenos Aires	22	—
Ceylon :		
Colombo	1	—
Egypt :		
Suez, Port Said, Alexandria	132	22
Greece :		
Patras, Piraeus, Salonica, Volo	6	—
India :		
Bombay, Calcutta, Vizagapatam	36	17
Morocco :		
Safi, Ceuta, Casablanca	13	3
Nigeria :		
Lagos	12	—
Pakistan :		
Chittagong	1	—
Palestine :		
Haifa	3	—
Peru :		
Cabo Blanco, Lobitos	13	—
Syria :		
Beyrout	4	—
Uruguay :		
Monte Video	1	—
	252	46

Of 176 vessels applying for renewal of Certificate, it was possible to issue Deratisation Exemption Certificates in 160 instances. Deratisation Certificates were issued in respect of 16 vessels, including 6 which were voluntarily fumigated by the owners.

VI.—HYGIENE OF CREWS' SPACES.

TABLE J.—Classification of Nuisances.

Nationality	Number inspected during 1950	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health	Structural Alterations
British	1,052	28	418	426	15
Other Nations	813	10	69	175	11

Particulars of the defective conditions tabulated in Table J are detailed below :

	British s.s. and m.v.	*Foreign s.s. and m.v.*
DEFECTS OF ORIGINAL CONSTRUCTION.		
Ventilation insufficient or defective	3	3
Ventilator in quarters not provided with wind chute	9	5
Heating apparatus not provided or insufficient	1	1
Natural lighting deficient	4	—
Insulation insufficient	2	—
Food lockers not ventilated	2	1
Insufficient food storage facilities	2	—
Water leakage into quarters from chain locker	1	—
Bare iron deck required sheathing	2	—
Heavy condensation on skylights	2	—
DEFECTS DUE TO WEAR AND TEAR.		
Bulkheads defective allowing communication between W.C.'s &c. and quarters	2	2
Decklights, portlights, etc., broken and defective	46	1
Decks, fittings, etc., defective	53	2
Lockers missing from quarters	1	—
Overhead deck in leaky condition	55	6
Quarters in leaky condition	5	—
Water leakage into accommodation... ...	4	—
Water tank broken and defective	6	—
Insulation defective	8	—
Stove and stove pipes defective...	17	5

	British s.s. and m.v.	Foreign s.s. and m.v.
Defects due to wear and tear—continued.		
Artificial lighting deficient or defective ...	2	—
Defective mosquito netting to doors ...	1	—
Chain locker and wood spurling pipe not gas-tight	2	—
Leaking connection to steam jet pipe ...	1	—
Ventilation inefficient or defective	10	1
Flushing apparatus defective	31	9
Flush, waste and soil pipes defective ...	32	1
Hawse pipe in leaky condition	2	—
Water system defective	11	—
Oil leakage into accommodation	12	—
W.C. seats require repairing or renewing	44	21
W.C. pedestals broken and require renewing	16	13
Heating apparatus defective or absent ...	55	8
Doors not weatherproof or absent	2	—
DEFECTS DUE TO OTHER CAUSES.		
Accommodation, etc. required cleaning ...	54	24
,, required painting	34	22
,, infested with cockroaches... ...	189	88
,, infested with bugs	19	3
,, infested with weevils, ants, silverfish and lice	20	3
Water tanks required cleaning	5	—
W.C.'s and urinals required cleaning ...	29	18
Choked scuppers	33	10
Washbasins and sinks required cleansing...	2	—
Accumulations of dirt and refuse about decks	18	3
Overcrowding and uncertified accommodation	2	—
Ship's gear, stores, etc., kept in quarters...	4	3
Properly ventilated food cupboard required	1	—
Condensed moisture in accommodation ...	5	—
Stagnant water in washplace, etc.	2	—
Natural light obstructed	—	1
Absence of discharge pipe to washbasins...	1	—
Waste pipe to basin choked	6	—
Forced draught system defective causing excessive black smoke emission from funnel	1	—
Accumulation of water in forecastle... ...	1	—

	British s.s. and m.v.	*Foreign s.s. and m.v.*
DEFECTS DUE TO STRUCTURAL ALTERATIONS.		
Ventilator over bunk required wind chute	3	2
Ventilation inefficient or defective	—	5
Bulkhead defective	2	—
Heating inefficient or defective...	2	1
Condensation in cabins	2	—
Food lockers not ventilated	—	1
Absence of door to room	1	—
Absence of water supply in washplace ...	1	—
No insulation to deckhead...	1	—
Direct communication between W.C. and accommodation	1	1
Salt-water pipe joint defective	1	—
Accommodation deficient in natural lighting	1	1

DANGEROUS DRUGS (No. 3) REGULATION, 1923.

No Certificates were issued under these Regulations during the year.

PARROTS (PROHIBITION OF IMPORT) REGULATIONS, 1930.

During the year 5 budgerigars were found on board 4 vessels. Written undertakings to re-export the budgerigars were received.

VERMINOUS QUARTERS.

93 vessels at the Latchford-Eastham end of the Canal and 186 vessels at the Manchester end of the Port were found to be infested. Of these 279 vessels, 192 were British and 87 were of foreign nationality. Vessels infested with vermin comprised 14.9% of the total inspections (1,865).

Some 31 vessels which made more than one visit to the Port during the year were found on subsequent inspection to be still infested. 227 individual vessels inspected (155 British, 72 Foreign) during the year were found to be vermin-infested (*see Table on page 17*).

Disinfestation was frequently carried out whilst the vessels were in the Port, and in other instances measures of control were adopted here but the vessels sailed before the final results could be ascertained. A continued increase in the number of vessels carrying supplies of insecticides was noticeable and by this means the infestation in these vessels was kept down to a minimum, if not entirely eradicated. A number of vessels are serviced on each visit to this Port. The reduction in the number of vessels found to be infested with vermin can be contributed to a combination of the fore-mentioned measures.

VESSELS INSPECTED BY SANITARY INSPECTORS.

			1950	1949	1948
Vessels entering the Port		Foreign	1,983	1,716	1,517
		Coastwise	1,807	2,138	1,841
		Total	3,790	3,854	3,358
Number inspected			1,865	1,699	1,529
Percentage inspected		Foreign and	49.20%	44.08%	45.53%
Number reported defective		Coastwise	616	612	386
Number on which defects remedied			383	314	281
British.	Number inspected		1,052	1,042	951
	Defects of original construction		28	50	30
	Structural defects through wear and tear		418	358	269
	Dirt and vermin, etc.		426	474	319
	Defects due to structural alterations ...		15	19	12
Other Nationalities	Number inspected		813	657	578
	Defects of original construction		10	11	10
	Structural defects through wear and tear		69	88	19
	Dirt and vermin, etc.		175	145	61
	Defects due to structural alterations ...		11	2	5
Number of vessels on which were remedied defects reported prior to year of inspection :		British	140	113	97
		Foreign	47	33	33

The work of the Sanitary Inspectors at different parts of the Port is indicated by the following statement of the number of vessels inspected and the number found with defects at various places along the Canal:—

Section A (*Manchester—Latchford*)—

	Inspected.	Defective.
Manchester, Salford and Stretford... ...	1,015	318
Davyhulme	25	12
Weaste	39	14
Irwell Park Wharf and Eccles	42	19
Barton	45	15
Irlam	39	29
Partington	96	41
	1,301	448

Section B (*Latchford—Eastham*)—

	Inspected.	Defective.
Warrington	2	1
Acton Grange	7	1
Astmoor Mar h	1	1
Widnes	14	5
Runcorn	31	10
Weston Point	72	13
Ince	20	7
Stanlow Oil Dock and Lay-Bye	254	88
Ellesmere Port	111	29
Bowaters' Wharf (Ellesmere Port) ...	49	12
Eastham	3	1
	564	168
Gross Total	1,865	616

Nationalities of the vessels inspected and the number found with defects :—

British	1,052	451
American	70	3
Belgian	2	1
Danish	55	8
Dutch	181	27
Egyptian	5	2
Eireann	7	5
Finnish	39	9
French	8	5
German	21	2
Greek	2	1
Honduran	1	—
Portuguese	1	1
Indian	4	3
Italian	19	12
Jugo-Slavian	3	3
Liberian	1	—
Polish	1	—
Norwegian	221	63
Panamanian	32	9
Spanish	16	3
Swedish	124	8
	1,865	616

The number of inspections made of British and Foreign vessels and the number found with defects were :—

	Inspected.	Number with Defects.
British Steamships and Motor Vessels ...	1,052	451
Foreign Steamships and Motor Vessels ...	813	165
Totals	1,865	616
Re-Visits	598	
Gross Total of visits and re-visits ...	2,463	

In the Manchester Section there was an increase of 165 inspections over the previous year, and in the Runcorn Section an increase of one vessel was recorded.

OBSERVATIONS OF THE SANITARY INSPECTORS.

EXTENT OF RAT INFESTATION ON TANKERS.

The survey first commenced in 1948 was continued during the year and the further information gained is given in the Table on page 23.

Towards the end of 1949 a new refinery came into operation at Stanlow to deal with crude oil mainly from the Middle East oilfields. The result has been greater import of crude oil into the port, thereby increasing the number of tankers carrying this type of oil. In previous years crude oil tankers were, for the purpose of the survey, treated as spirit tankers and included in the Table under that heading. Owing to their increase in numbers, it has been decided this year to tabulate such tankers separately. A column showing old infestations has also been incorporated in the table for this year.

The number of foreign-going tankers inspected rose from 170 in 1949 to 233 in 1950, an increase of 63. For the second year in succession the percentage of infested tankers at the time of inspection has dropped, 12.4% compared with 15.8% in 1949. On the other hand, vessels showing evidence of old infestation rose from 10 to 19, giving relative percentages of 6% in 1949 to 8.1% in 1950. The improved figures of active infestations affected both British and Foreign owned tonnage, with the latter showing the most noticeable improvement. Slight active mice infestation was found in the provision storerooms of 2 spirit and 1 fuel oil tankers ; in all cases measures were in progress for elimination.

Rats continue to be found on spirit tankers, and 5 out of 55 such tankers were found slightly infested during the year, a percentage of 9.9 against the overall 12.4% for all types. An interesting point to date is that, in the three years of the survey only 2 out of 30 kerosene tankers had rats on board during inspection, the percentage of 6.6 being the lowest for all types of tankers.

During the year once again only one tanker was found to be heavily infested. This vessel was British, of old construction and engaged in the black oil trade. Her deratisation exemption certificate was issued previously in a foreign port. It was reported that approximately 20 rats had been accounted for on the voyage just completed and, from observation, it was apparent that infestation had been present for a long period. This tanker made a quick turn-round and proceeded to a continental port for repairs. The Master was advised of the conditions found and the necessity for an early fumigation. Another British tanker carrying fuel oil was found to be moderately infested after a long voyage away from England. In this case the vessel proceeded to another British port for overhaul and a letter was sent to the Port Health Authority concerned apprising them of the conditions found and the near expiry of the deratisation exemption certificate. It was learned at a much later date that fumigation was carried out, but no official information was received.

From my latest observations it would seem that more interest is being taken by personnel in precautionary and preventive measures against rodent infestations. Masters and Officers of all nationalities generally showed willingness to accept advice and execute repressive measures to good effect. Such co-operation is appreciated, as a great deal of good work can be achieved if only the crews of vessels show interest. This observation applies equally well to cockroach and other insect infestations which still continue to be met far too frequently.

Rat proofing still leaves much to be desired, even in some new vessels where good intentions and materials are marred by lack of knowledge as to what is required, resulting in badly fitting and inadequate proofing. Instances of poor rat proofing encouraging infestations are often encountered and one is left with a stronger desire than ever to see legislation introduced to enable proper supervision and maintenance of this aspect by Port Health Atuhorities.

G. E. STANLEY.

Administration and inspection at the Manchester-Latchford section of the Canal continued as in previous years.

Vessels which had been built during the year showed a high standard of accommodation, especially in the new British vessels. No difficulty was encountered in the remedying of defects on vessels; informal notices received prompt attention on nearly all occasions with the co-operation of Ship Owners or Agents. Despite this co-operation, however, difficulty is still being encountered in the removal of refuse due in the main to transport difficulties.

Samples of drinking water were taken for chemical analysis and bacteriological examination from the double bottom tanks and domestic tank of a vessel. The Salford City Analyst reported that the presence

EXTENT OF RAT INFESTATION ON BOARD TANKERS.

Nationality	Type of Oil carried	Number of vessels inspected	Number of vessels found clear of infestation	Number of vessels found infested			Percentage of vessels found infested	Number of vessels showing evidence of old infestation
				Slight 1—5 Rats	Moderate 6—10 Rats	Heavy 11 Rats or over		
British	Spirit	27	24	3	—	—	11.1	1
	Kerosene	4	4	—	—	—	—	1
	Fuel	30	26	2	1	1	13.3	2
	Gas	6	6	—	—	—	—	—
	Lubricating ...	5	3	2	—	—	40.0	—
	Crude	46	39	7	—	—	15.2	5
	Total	118	102	14	1	1	13.5	9
Foreign	Spirit	28*	26	2	—	—	7.1	1
	Kerosene	6	6	—	—	—	—	—
	Fuel	22†	19	3	—	—	13.6	2
	Gas	4	4	—	—	—	—	—
	Lubricating ...	1	1	—	—	—	—	—
	Crude	54	46	8	—	—	14.8	7
	Total	115	102	13	—	—	11.3	10
All Vessels	Total 1950	233	204	27	1	1	12.4	19
All Vessels	Total 1948/49 ...	339	271	56	9	3	20.0	10
All Vessels	Total 3 years ...	572	475	83	10	4	17.0	29‡

* Slight Mice Infestation on 2 Tankers
† Slight Mice Infestation on 1 Tanker
} not included in infested columns of Table.
‡ Figure for 1948 not known

of free caustic alkalinity rendered the water from both tanks unfit for drinking, and in the case of the water from the double bottom tanks it was present in such quantity as to give rise to unpleasant effects on the consumer. The Bacteriologist found that the coliform count was considerably in excess of the accepted standards for a safe drinking water. The reports were brought to the attention of the owners of the vessel who promptly gave the matter their attention. When the vessel returned six weeks later no further complaints were received.

Three floating grain elevators in the Port were examined and all were found to be infested with rats. Trapping and poisoning have been carried out by the Owners and there has been a considerable reduction in the degree of infestation.

Although the Authority has no jurisdiction on the Dock Premises a survey of the sanitary accommodation within the dock area was carried out with the consent of the Manchester Ship Canal Company following a communication from the Association of Sea and Air Port Health Authorities. It is understood that plans have been prepared to improve the accommodation as soon as circumstances permit.

N. M. SAMPSON.
R. EGAN.

LIST OF FOOD IMPORTS

	From Foreign Ports.	From Coastwise Ports.
Grain, Cereals, &c.—		
Cornflour	233,451 bags	
Farinoca	968 bags	
Flour	459,989 bags	
Groats	32 bags	
Maize	24,697 tons	4,115 tons
Quaker Oats	87,259 cartons	
Rusks	1,710 cartons	
Tapioca	167 bags	
Wheat	252,860 tons	
Oatmeal		32 bags
Sago Flour		514 bags
Popcorns		503 packages
Fruit, &c.—		
Apples	122,849 packages	7,911 packages
Blackberries		48 casks
Dehydrated Pineapples	40 cartons	
Dried Fruit	345,003 packages	
Fruit Oil	240 cases	
Fruit Pulp	4,088 casks	137 casks
Fruit Syrup and Juice	3,497 casks	
Lemons	100 cases	
Mixed Peel	511 packages	
Oranges	34,262 cases	
Tomatoes	1,471 crates	
Vegetables—		
Vegetables in Brine	1,280 casks	
Fresh Vegetables	52,297 bags	
Dried Vegetables	5,768 bags	330 bags
Dehydrated Onion Powder	430 cartons	
Dairy Produce—		
Butter	4,503 cases	
Casein	342 bags	176 bags
Cheese	100,181 packages	
Dried Egg	44,888 cartons	
Egg Pulp	1,731 cartons	
Eggs		14,807 crates
Milk Powder	12,111 packages	456 bags
Meat, &c.—		
Bacon	35,818 packages	
Mutton & Lamb (frozen)	12,310 carcases	
Pig Products		195 packages
Poultry	2,103 cases	
Rabbits (frozen)	2,872 crates	
Salami Sausage	75 cartons	
Salted Casings	72 packages	

	From Foreign Ports.	From Coastwise Ports.
Edible Oils and Fats—		
Castor Oil	1,230 drums	
Liquid Paraffin	287 drums	
Premier Jus	5,555 packages	
Sunflower Seed Oil ...	941 tons	
Sweetened Fat	140,729 packages	1,726 cases
Tallow	1,471 casks	
Vegetable Oils and Fats	135 packages	
Canned and Bottled Goods—		
Chicken (bottled) ...		80 cartons
Christmas Puddings ...	1,214 cartons	
Fruit	219,445 cartons	35,688 cartons
Fruit (bottled)	7,604 cartons	
Fruit Juice	4,351 packages	
Fish	330,810 cases	200 cases
Fish Paste	7,650 cartons	
Jam	4,901 cartons	
Jam (bottled)	50 cases	
Lemon Curd		64 cartons
Marshmallow		5 cartons
Mayonnaise	3 tins	
Meat	167,702 packages	10,690 cartons
Milk		56,500 cartons
Milk Food	150 cartons	1,100 cartons
Milk Powder		14,598 tins
Mushroom Preserve ...	120 cases	
Puddings (Sweet) ...		926 cartons
Soup	7,650 cartons	23,411 cartons
Steak Puddings		2,110 cartons
Tomatoes	12,500 cases	
Tomato Juice	150 cartons	
Vegetables	80,097 packages	23,577 cartons
Tomato Ketchup (bottled)		1 crate
Confectionery—		
Chocolate	1,751 packages	
Mincemeat	5,175 cases	52,016 packages
Biscuits		1,151 packages
Sweets	1,777 cartons	
Confectionery Commodities	110,569 packages	26,593 packages

	From Foreign Ports.	From Coastwise Ports.
Miscellaneous—		
Acetic Acid	4,294 drums	
Beer, Stout, Wines, &c.	23,954 cases	73,570 tons
	24 barrels	725 barrels
	11 casks	100 butts
		18 casks
Capsicums	313 bags	
Cinnamon	101 bales	
Citric Acid	506 casks	
Cocoa	402,117 bags	
Cocoanut	1,560 cases	
Coffee Beans	1,000 bags	
Cough Lozenges	6,341 bags	
Dried Herbs	70 bags	
Honey	3,000 drums	
Liquorice Juice	585 cartons	
Liquorice Root	30 bales	
Salad Cream	610 cartons	
Syrup	506 drums	30 cartons
Tea	186,450 chests	1,032 chests

The above foodstuffs were subjected to a percentage examination.

(1) Action taken under the Public Health (Imported Food) Regulations, 1937 and 1948, the Public Health (Imported Milk) Regulations, 1926, and the Public Health (Preservatives, &c. in Food) Regulations, 1925 to 1948, continued as in previous years.

RESULTS OF INSPECTION.

Amounts of Food Imports which have been condemned during the year :—

Articles.	Weight Tons	cwts.	qrs.	lbs.
Grain, Cereals, &c.—				
Wheat	185	17	1	21
Maize	79	18	1	0
Flour Sweepings	2	1	0	5
Oats		2	1	7
Barley		1	2	22
Fruit—				
Dried Fruit		11	2	6
Canned and Bottled Goods—				
Chicken				1
Christmas Puddings				5
Fish	5	10	3	19
Fruit	2	19	3	$11\frac{5}{8}$
Fruit Juice			1	11
Jam				8
Meats		1	0	$16\frac{5}{8}$
Mincemeat		2	0	$16\frac{1}{2}$
Tomatoes		1	2	$24\frac{1}{4}$
Vegetables				$24\frac{1}{2}$
Miscellaneous—				
Bakery Cream		1	2	0
Cheese				6
Cocoa Beans	15	12	1	14
Confectionery		2	3	$7\frac{1}{2}$
Fruit Cake				$6\frac{1}{2}$
Mutton (frozen)				27
Onions		1	0	0
Pork (frozen)				17
Premier Jus			2	3
Rabbits (frozen)			3	0
Sweet Fat		1	0	$3\frac{3}{4}$
Tea		18	1	7
	294	7	2	$11\frac{1}{4}$

In addition, the following articles were voluntarily surrendered for destruction :—

Barley			2	17
Cereals		2	1	21
Fish (canned)	7	7	0	0
Fruit (canned)			1	4
Fruit Pulp		15	0	0
Flour	20	18	3	0
Kippers				12
Oats				20
Pickles				13
Rice		2	3	4
Sago				14
Sweet Fat			1	9
Wheat	3	0	0	0
	32	7	3	2
Gross Total	326	15	1	13¼

Over 94 per cent. (307 tons) of the food condemned or surrendered was utilised for animal food or commercial purposes.

(2) Shell-Fish.—There are no shell-fish beds or layings within the jurisdiction of the Authority.

LABORATORY EXAMINATIONS.

(3) Number of samples of food examined by :

(*a*) Bacteriologist 23
(*b*) Analyst 21

The following samples were submitted for bacteriological examination to the Public Health Laboratory, Monsall Hospital, Manchester :—

Nature of Sample.	Object of Examination.	Result.
Dutch Canned Luncheon Meat ...	Bacteriological Examination.	Contents of tin were sterile on both aerobic and anaerobic culture.
Dutch Canned Ham and Veal Loaf	Ditto	Ditto
French Canned Lunch Meat	Ditto	Ditto
Belgian Canned Lunch Meat ...	Ditto	Ditto
French Canned Luncheon Meat ...	Ditto	Ditto
Belgian Canned Frankfurter Sausages in Brine.	Ditto	Ditto
Dried Egg Powder	Ditto	Organisms associated with food poisoning not isolated.
Danish Canned Luncheon Meat ...	Ditto	Contents of tin were sterile on both aerobic and anaerobic culture.
South African Canned Picnic Ham...	Ditto	Ditto
Dutch Canned Luncheon Meat ...	Ditto	Ditto
Dutch Canned Pork Luncheon Meat	Ditto	Ditto
Canned Luncheon Fry ... ... (Product of N. Ireland)	Ditto	Ditto
Dutch Canned Luncheon Meat ...	Ditto	Ditto
Belgian Canned Frankfurter Sausages in Brine.	Ditto	Ditto
Dutch Canned Luncheon Meat ...	Ditto	Ditto
Italian Canned Plum Peeled Tomatoes.	Ditto	Ditto
British Canned Herrings in Mustard Sauce.	Ditto	Ditto
British Canned Spiced Herrings ...	Ditto	Ditto
British Canned Herrings in Tomato Sauce.	Ditto	Ditto
French Moroccan Canned Sardines in Edible Oil and Tomato.	Ditto	Ditto
French Moroccan Canned Sardines in Oil and Tomato.	Ditto	Ditto
Norwegian Canned Crab Paste ...	Ditto	Ditto
French Moroccan Canned Sardines in Edible Oil and Tomato.	Ditto	Ditto

The following samples were forwarded to the Public Analyst, Manchester, for chemical examination :—

Nature of Sample.	Object of Examination.	Result.
Egyptian Dehydrated Onion Powder.	Metallic Contamination.	Copper—5 parts per million, zinc—10 parts per million. lead—16 parts per million, No actual metallic particles found.
Dutch Apple Juice	Preservative	120 parts per million SO_2. No presence of boric acid or benzoic acid.
Meat Extract	Metallic Contamination.	230 parts per million tin, 12 parts per million copper. Not exceeding 1.4 parts per million arsenic. No significant amounts of lead or copper.
Dutch Chocolate Spread	Chemical Analysis	Free from preservative.
Casked Blackberries	Preservative	2,200 parts SO_2 per million. After boiling the sample with sugar until the mixture had the consistency of jam, found to contain 60 parts SO_2 per million.
Cocoa Beans	Nature of Water Damage.	May have been spoiled by Ship Canal water.
Cake Mixture	Nature of Constituents.	Found to be satisfactory.
Italian Canned Peeled Plum Tomatoes.	Metallic Content.	60 parts per million of tin; arsenic, lead, copper and zinc absent.
Concentrated Orange Juice ... ... (Produce of Palestine)	Sulphur Dioxide	Three samples—found to contain 1,280, 1,370 and 1,600 parts SO_2 per million
Pasteurised Orange Cells ... ... (Produce of Palestine)	Preservative	Found to contain 1,530 parts SO_2 per million.
Halva (Sweetmeat) ... ... (Produce of Israel)	Metallic Content.	No presence of arsenic, lead, copper, zinc or tin.
Danish Bottled Beer	Sulphur Dioxide.	Two samples—found to contain 11 and 8 parts SO_2 per million
French Canned Mushrooms	Metallic Content.	Found to contain 50 parts tin per million, 8 parts copper per million; arsenic, lead and zinc absent.
Danish Bottled Beer	Metallic Content.	No presence of arsenic; not exceeding 0.2 parts lead per million.
Sweetened Apple	Preservative and Metallic Contamination.	50 parts SO_2 per million; 1 part arsenic per million and less than 2 parts lead per million; sample consisted very largely of glucose syrup.
Dehydrated Onion Powder	Metallic Content.	3 parts lead per million ; 5 parts copper per million; arsenic and zinc absent.
Dutch Lemonade Syrup	Preservative.	200 parts per million SO_2.

Nature of Sample.	Object of Examination.	Result.
Dutch Ice Cream Paste	Preservative.	Benzoic, salicylic and boric acids and formaldehyde absent. The product is probably "preserved" by a high concentration of sugar.
Italian Peeled Plum Tomatoes ...	Metallic Content.	Two samples: (*a*) copper—7 parts per million; lead—2 parts per million; arsenic—not more than 1 part per million ; (*b*) copper—5 parts per million; lead—2 parts per million; arsenic—not more than 1 part per million. Cans in excellent condition externally and internally. No visible action on the tin on the inside, which was not lacquered in either case.
South African Canned Sliced Oranges in Medium Syrup.	Metallic Contamination.	4 parts per million lead, 3 parts per million copper, not exceeding 60 parts per million tin ; zinc and arsenic absent.
Australian Canned Mincemeat ...	Preservative.	Two samples : (*a*) 38 parts per million SO_2 ; (*b*) nil. The amount of SO_2 found in (*a*) could be easily accounted for by the presence of permitted preservative in the ingredients.

OBSERVATIONS OF THE FOOD INSPECTORS.

During the year a greater variety of foods have been imported from Continental and Baltic countries, the increased imports of canned meats from the Continent being particularly noticeable. The canning in some instances was not of a high standard and your Inspectors deemed it advisable to keep the closest check on these imports, which necessitated frequent samples for bacteriological examination.

The condemnation, as unfit for human consumption, of 41 bags of dirty tea sweepings, resulted in the Assistant Director, Ministry of Food (Tea Division) questioning our authority to condemn this tea as unfit for human consumption. An exchange of letters between the Port Medical Officer of Health and the Assistant Director (Tea Division) brought the latter to Manchester to discuss the position. The Assistant Director was of the opinion this tea could be cleaned and a portion salvaged. Owing to the degree and nature of contamination the Port Medical Officer could not agree to this, and eventually the tea was disposed of for caffeine extraction.

About 214 bags of cocoa beans, suspected of being damaged by dock water, were released for abstraction of cocoa butter to B.P. standard on guarantee from the Ministry of Food (Raw Cocoa Division).

Several instances occurred of irregularities regarding official certificates, and steps were taken to obviate any further incidents of this nature.

A consignment of citrus fruit juice was found on analysis to contain an excessive amount of SO_2, but as dilution during manufacture would reduce the amount to within prescribed limits, the juice was released on undertakings to this effect being given by the manufacturers.

Six hundred cases of canned herrings were returned from Egypt, where they had been lying for 12 months. A percentage examination revealed 25 per cent. of the tins to be "blown" in varying degrees, and the owners were informed that a 100 per cent. examination would be necessary. Total inspection, involving examination of 57,600 tins, was subsequently carried out by your Inspectors and a representative of the owners, resulting in 257 cases being seized as unfit for human consumption. The owners later decided to abandon the whole consignment and voluntarily surrendered the remaining 343 cases, which were disposed of under supervision.

On several occasions ship's stores have been examined and disposed of at the request of the Ministry of Transport.

A communication was received from the Ministry of Food in October advising of an illicit trade in meat products, chiefly canned meats. A careful check of such products from the country concerned has been maintained, but nothing untoward has yet been encountered.

Amicable relations and full co-operation were continued with all Ministry departments, H.M. Customs, the Manchester Ship Canal Co., shipping and other firms.

W. H. JENNINGS.
T. BORROWS.

REPORT ON THE ADMINISTRATION OF THE PUBLIC HEALTH ACT, 1936 (Part X)

For the Year ended 31st December, 1950.

(1) The following Inspectors are appointed by the Authority to carry out the provisions of the Canal Boat Regulations and Public Health Act, 1936 (Part X) :—

R. Egan, N. M. Sampson — for Section A (Manchester to Latchford).

G. E. Stanley — for Section B (Latchford to Eastham).

No Inspector devotes his whole time to the duties of canal boat inspection. For the purposes of administration, the Port is divided into two sections, viz., from Eastham to Latchford, including Widnes and Warrington, with headquarters at Runcorn, and from Latchford to Manchester, with headquarters at Manchester. Each Inspector is directly and solely responsible to the Medical Officer of Health for the proper supervision of his work under the Canal Boat Regulations.

A motor launch is in daily use on the lower reaches of the Canal and this enables the Inspector to keep under constant supervision canal boats, in addition to Merchant Shipping, at the Latchford-Eastham section of the Port.

(2) During the year there has been an increase of 11 inspections compared with those of the previous year. On the Runcorn section of the Canal 115 inspections were made, and on the Manchester section 245 inspections.

Individual Number of Canal Boats inspected during 1950	Number of Inspections made	Average Number of Inspections per boat	Individual Number of boats defective	Percentage defective to number of individual boats	Number of defective boats reported remedied
214	360	1.68	86	41.86%	27

INSPECTION OF CANAL BOATS

Year.	Number of Inspections.	Number of Complaint Notes served.	Percentage Defective.
1950 ...	360 ...	81 ...	22.50
1949 ...	349 ...	100 ...	28.65

(3) The following is a summary of the defective conditions and contraventions of the Canal Boat Regulations found during the year :—

Certificates.	
Registration certificate not produced	17
Registration certificate dilapidated	4
Registration certificate does not identify owner ...	9
Registration certificate requires amending	1
Markings.	
No marks	2
Marking indistinct or incorrect	4
Improper occupation	1
Cleanliness and Repairs.	
Cleansing and painting of cabins, lockers, berths, etc.	26
Leaking deckheads and overhead decks	20
Cabins, etc., dilapidated and repairs required ...	16
Defective stoves, stove pipes, etc.	14
Defective fittings in cabin	2
Infested with bugs	3
Infested with mice	1
Skylights, decklights broken	2
Companion way hatch requires repairing	3
Bilges require cleaning out	2
Double bulkhead not watertight	1
Ventilation and Lighting.	
Ventilation inefficient or ventilators defective ...	1
Provision of Water Cask.	
No water vessel, vessel not of sufficient capacity, defective or required cleaning	11
	140

(4) To secure compliance with the Acts, complaint notes have been promptly served upon the owners. No legal proceedings have been necessary to obtain the remedy of defects.

(5) One case of measles was reported during the year.

(6) No boats have been detained for cleansing or disinfection.

(7) The Authority is not a Registration Authority.